

### CLAIMS

1. A terminal for generating a high-frequency electromagnetic field by means of an oscillating circuit, adapted to cooperating with at least one transponder when said transponder enters this field, and including:

means for regulating a signal phase in the oscillating circuit with respect to a reference value; and

means for evaluating, based on a measurement of a current in the oscillating circuit, a minimum number of transponders present in the field.

2. The terminal of claim 1, further including means, based on a measurement of a voltage across a capacitive element of the oscillating circuit, for evaluating the maximum number of transponders present in the terminal's field.

3. The terminal of claim 1, including means for determining and storing characteristic information relative to voltages across the capacitive element of its oscillating circuit and to currents in this oscillating circuit, in several determined configurations of a distance separating one or several transponders from the terminal, and for taking these characteristic information into account in evaluating the number of transponders.

4. The terminal of claim 3, wherein said characteristic information includes, among others:

a voltage across the capacitive element when no transponder is present in the field of the terminal;

a voltage across the capacitive element when a transponder is in a relation of maximum closeness with the terminal;

a current in the oscillating circuit when no transponder is present in the terminal's field; and

a current in the oscillating circuit when a transponder is in a relation of maximum closeness with the terminal.

5. The terminal of claim 1, wherein the evaluation of the number of cards is performed without interpreting possible data messages carried by the high-frequency field.

6. A method for establishing at least one communication between a terminal generating a high-frequency magnetic field and an electromagnetic transponder, including periodically sending a request sequence until at least one transponder entering the field sends an acknowledgement, and of evaluating, based on a measurement of a current in an oscillating circuit of the terminal, a minimum number of transponders likely to be present in the field.

7. The method of claim 6, wherein said evaluation includes comparing the measured current with previously calculated and stored values corresponding to evaluations of a maximum current for several minimum numbers of transponders.

8. The method of claim 6, further including, based on the evaluation of the minimum number and on a measurement of a present voltage across a capacitive element of the oscillating circuit, evaluating a maximum number of transponders likely to be present in the terminal's field.